UTAH DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS CENTER
MONTHLY REPORT MAY 2004

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Field Devices Summary

Freeway Closed Circuit Television (CCTV)	171
Surface Street CCTV	32
Dial-up CCTV	35
Total CCTV	**238**
Freeway VMS	45
Surface Street VMS	17
Portable VMS	2
Total VMS	**64**
HAR (6 deployed, 5 portable units)	11
TMS	243
RWIS	41
Connected Traffic Signals	623
Connected Ramp Meters	23

CommuterLink Celebrates 5 Years of Service

Operations Summary

VMS Messages Displayed	744
Signal Timing Calls	50
Signal Maintenance Calls	284
New Work Orders	428
Incident Responses	729
Website Visitor Sessions	88,326
511 Calls	20,312
Email Alerts Sent	284
Weather Desk Calls	104
CommuterLink Questions	25

KUDOS!

CommuterLink Accomplishments Over Last 5 Years

15 Lives Saved

4,740 Traffic Accidents Prevented

$895 Million and 49 Million Hours of Delay Saved

Incident Clearance Times Reduced by One Third

TOC Employee of the Month

Ralph Patterson – RWIS Specialist

TOC Mission

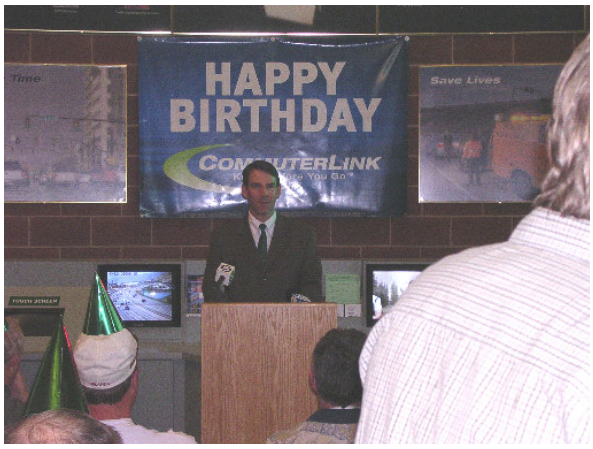
1. To Support UDOT and the Department of Public Safety in Improving Highway Safety.
2. To Help Provide Reliable and Efficient Travel.
3. To Provide Useful and Timely Real-time Traffic Information.
4. To Work Together with Other Government Agencies to Serve the Public.
5. To Provide Excellent Customer Service.

ACTIVITY HIGHLIGHTS

TOC Activities

This Month

1. The Traffic Operations Center celebrated five years of public service. At a reception held at the TOC, John Njord talked about CommuterLink and the other systems at the TOC, "The people and technologies that work together as 'CommuterLink' really do make a difference. The system saves Utahans $179 million and 9.8 million hours every year because of fewer delays, increased safety, and more fuel efficiency. Nine-hundred-forty-eight traffic accidents and three traffic accident-related deaths are also prevented every year thanks to CommuterLink." Utah Department of Public Safety Colonel Claron Brenchley, also in attendance, noted that because of the coordinated efforts of those involved with CommuterLink, clearance times have been reduced from three to two hours for multi-lane full closure incidents, and from four to two hours for major single-lane incidents. The TOC has grown from having ATMS devices largely in Salt Lake County to having numerous devices in Weber, Davis, Summit, Utah, and Carbon Counties. This growth shows the ability of the TOC and its staff to grow and adapt in order to better serve Utah residents.



UDOT Executive Director John Njord Congratulates CommuterLink

2. UDOT hosted the 2004 AASHTO Spring Meeting May 13-17, in St. George. Liz Olschewski was the chairperson for organizing the conference. Bryan Chamberlain and Ralph Patterson helped at the conference and displayed a booth promoting CommuterLink, 511, and UDOT Weather Operations. Dian Williams was on the AASHTO planning committee. The conference was attended by the Executive Directors from the 50 States, Federal Highway Administration (FHWA), and some engineering consultant firms. Various national level meetings were held throughout the conference. John Njord, UDOT Executive Director has been serving as AASHTO President since September 2003 and was very pleased with the efforts of UDOT staff to organize and host the conference.

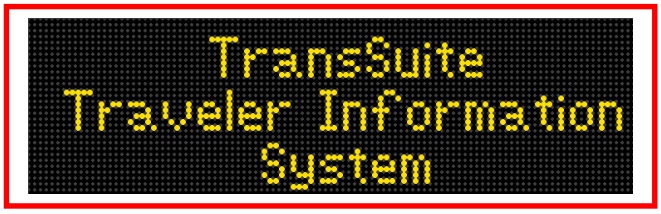

IMT & Maintenance Building

3. Two construction projects are underway at the TOC. On the north side of the second floor two office rooms have been added. The addition of these two rooms will provide 12 new office spaces. The second construction project is to the southwest of the TOC. This building is being constructed to accommodate the needs of IMT, ATMS Maintenance, and Region 2 Maintenance Crews.

ATMS Improvement and Expansion Activities

The following is a list of many of the projects that have either been completed, or are currently underway:

Statewide:



The TOC is in the process of upgrading the ATMS software to a windows based operating system. This conversion will facilitate the deployment and integration of new CommuterLink partners (i.e., Davis and Utah County agencies) by offering increased functionality, greater flexibility, and ease of deployment. This initial base conversion is being conducted in 4 phases. The first phase was completed in May and consisted of integrating a new VMS control module called Traveler Information System or TIS. Among the basic enhancements offered through this new system is the ability to prevent misspelled words from being displayed; a quick message feature to let operators generate and post messages faster; global messaging to facilitate Amber Alert responses; and sign scheduling features to facilitate management of construction or planned events to name but a few.

Phase 2 will entail the replacement of the incident management interface to accommodate the future CAD-ATMS integration between the Salt Lake City Police and Fire, VECC and UTA dispatch, and will bridge these incident records to the existing ATIS interfaces (i.e., 511, website, alerts). This phase will be complete in June. Phases 3 and 4 will complete this upgrade of the original Navigator software, and is scheduled for completion by August and October respectively. New features that will be incorporated through this upgrade include a new GIS operator map, ramp meter and detector status user interface, and video control system. Subsequent phases of deployment are currently being discussed and may focus on enhancements to ATIS systems such as 511 or the HAR.

Region 1:

- Two new Variable Message Signs (VMS) came online to the TOC as part of the Legacy Parkway Project. Crews installed communication equipment at the signs on southbound US-89 at Green Road and southbound I-15 at Burton Lane in Davis County.
- Ethernet equipment was installed at CCTV, TMS, ramp meter, and traffic signal locations throughout the Legacy Parkway Project to comply with the new communication architecture.

Region 2:

- Crews finished installing communications equipment for the new VMS on I-215 Northbound at 1700 North. This brings the total number of VMS online to 64.
- The Request for Proposal (RFP) for the adaptive traffic signal control project on Foothill Boulevard has been advertised. Proposals for this project are to be delivered by June 1st.

Region 3:

- Work has been completed for service entrances at three locations in this Region. These locations are the UTA building, the Spanish Fork Police Department, and the Spanish Fork Courts Building. These service entrances advance an interagency fiber interconnect project being led by UDOT.

Region 4:

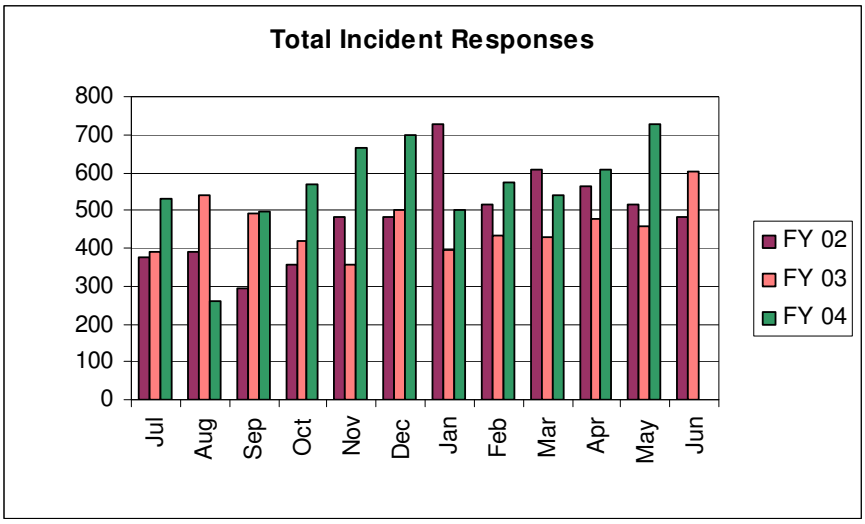
- Crews installed instrumentation, solar panels, and towers at the following RWIS sites: Scipio Summit (I-15 at Mile Post 184), State Route 20 (Mile Post 10), and Black Ridge (I-15 at Mile Post 42). Power and communications equipment remains to be installed prior to the completion of these RWIS. Upon completion, there will be 44 RWIS sites online at the TOC.

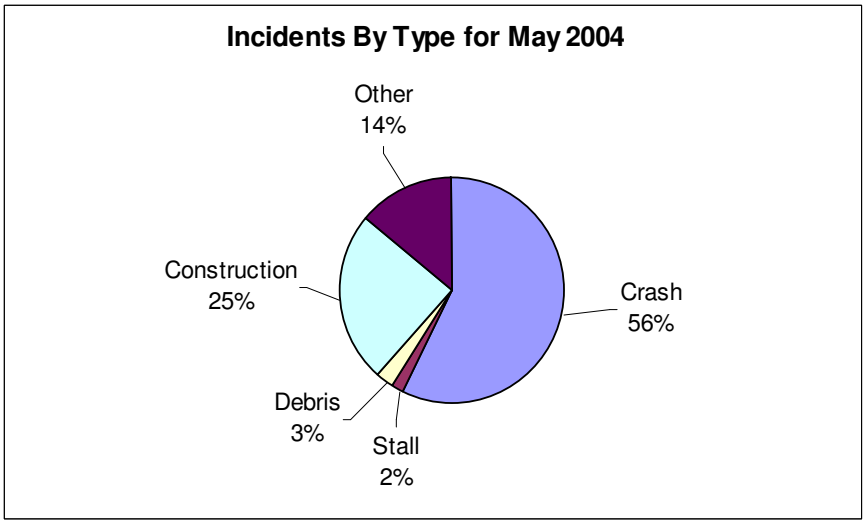
Acronyms

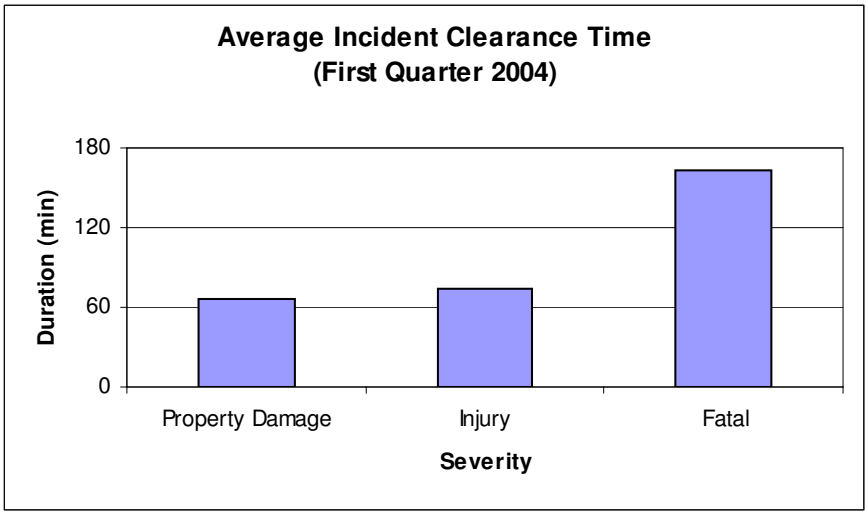
ATMS	Advanced Traffic Management System	TMS	Traffic Monitoring Station (count station)
CCTV	Closed Circuit Television	TOC	Traffic Operations Center
DPS	Department of Public Safety	TTI	Travel Time Index
HAR	Highway Advisory Radio	VMS	Variable Message Sign
RWIS	Road-Weather Information System	*i*2TMS	Integrated Interagency Traffic Management System

Safety

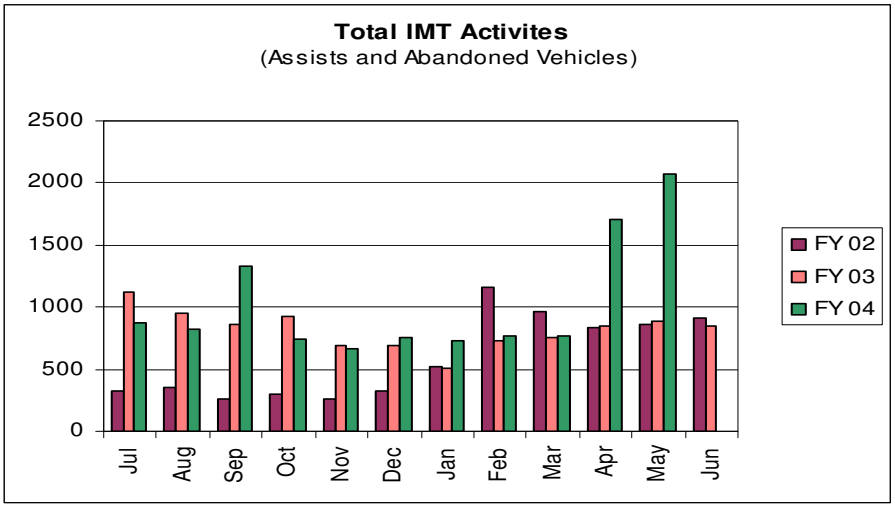
An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Crashes are separated into three subcategories: property damage, personal injury, and fatal. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts. An incident remains active until it has been completely cleared from the roadway.

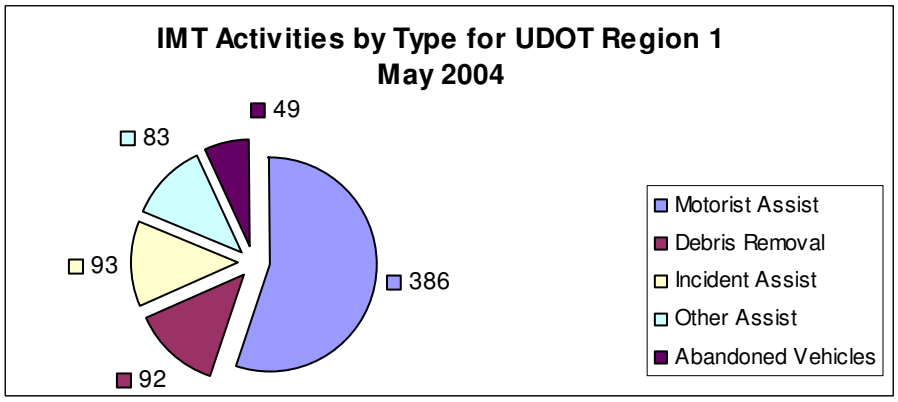


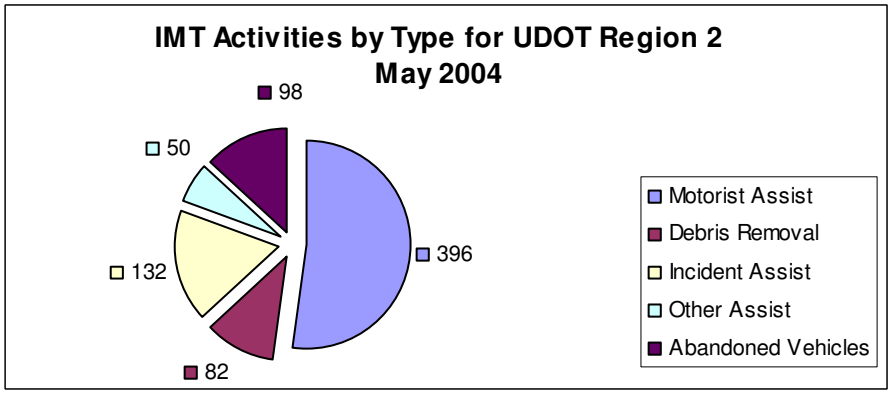


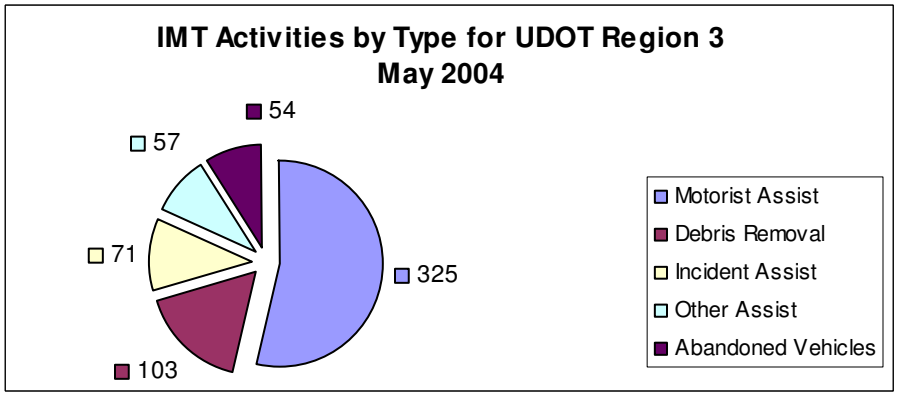


Incident Management Team (IMT) Activities









Freeway Traffic Level of Service

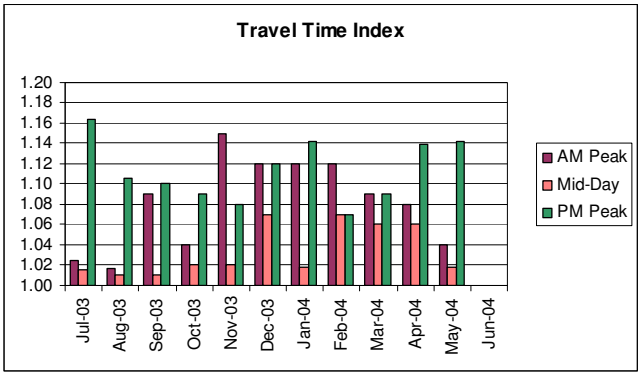
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

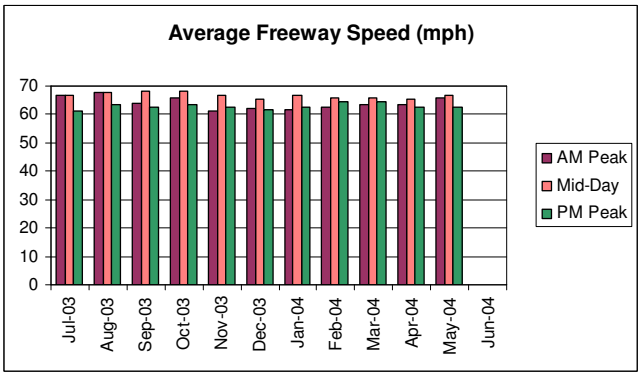
Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

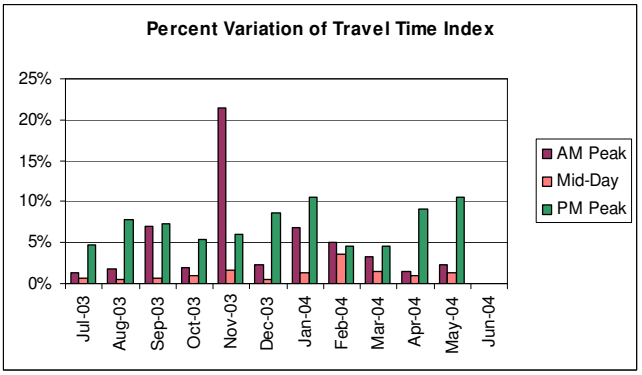
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

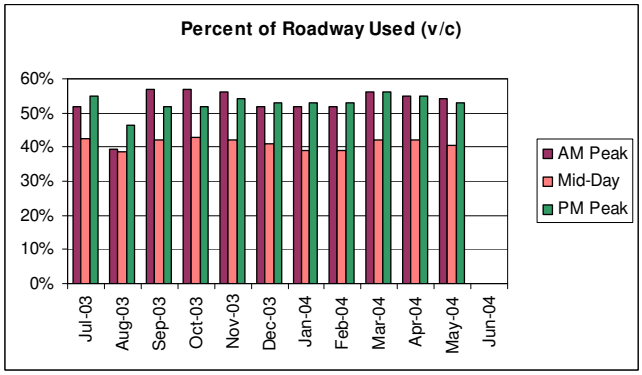
Average Freeway Speed: The freeway speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).









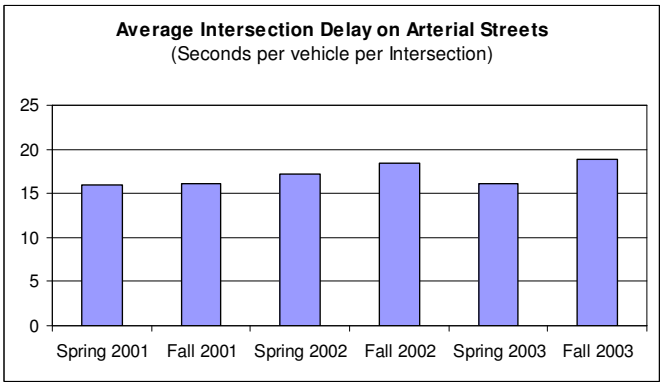
The 5 links with the highest average Travel Time Index for the month are:

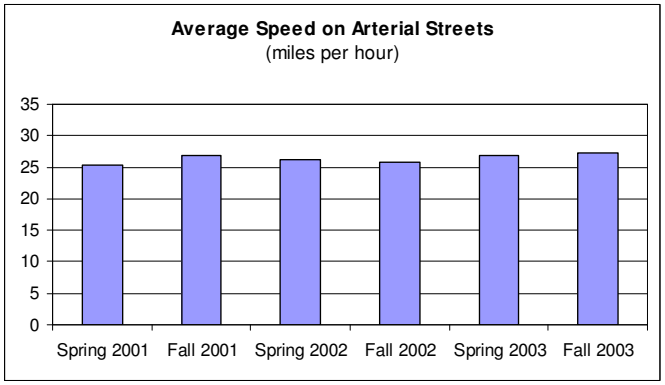
Segment	Period	Avg Of TTI
I-15 NB from 600 N to I-215 W	PM Peak	1.64
I-15 NB from 600 S to 600 N	PM Peak	1.32
SR-201 EB from I-215 W to I-15	PM Peak	1.20
I-215 W SB from SR-201 to I-15	PM Peak	1.16
SR-201 WB from I-15 to I-215 W	PM Peak	1.13

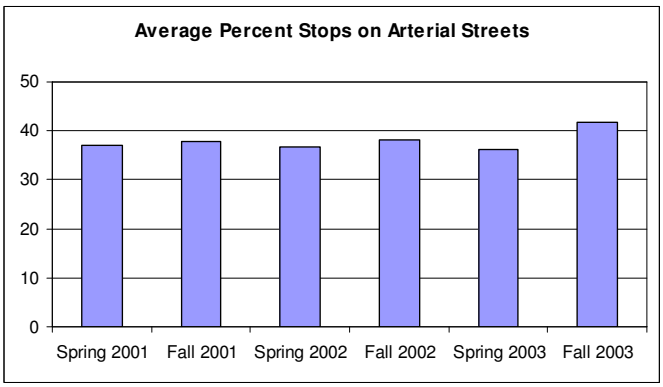
Surface Street Traffic Level of Service

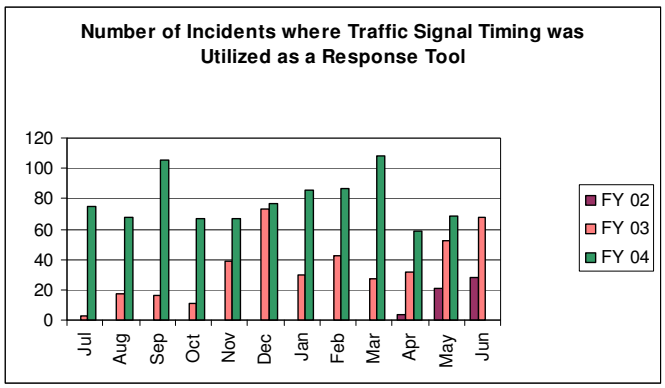
The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Traffic Systems Section gathers these measurements from Regions 1, 2, 3, and 4 twice each year. The chart in the lower right hand corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

The following charts illustrate the data gathered up to Fall 2003; next month this report will provide charts for Spring 2004. The following months will show charts for a Region compared to the statewide average. The charts below represent the semi-annual statewide averages.

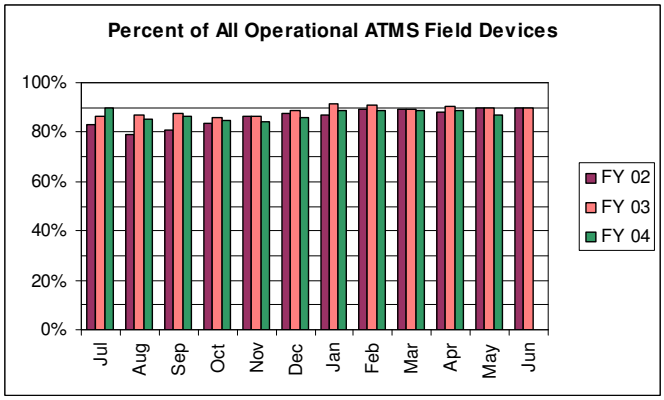


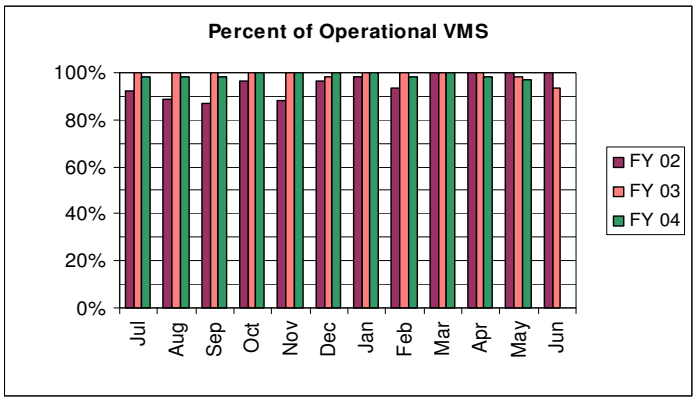


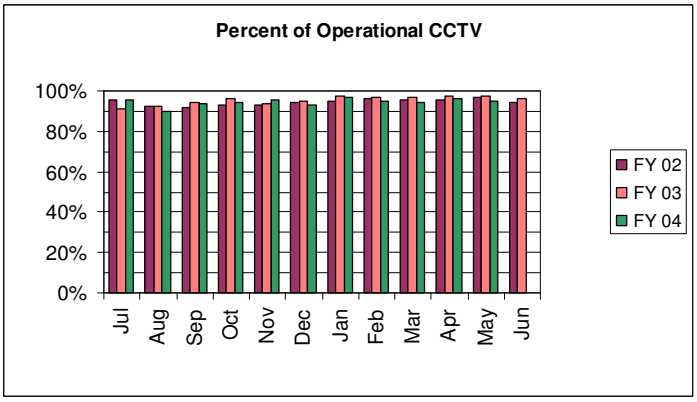


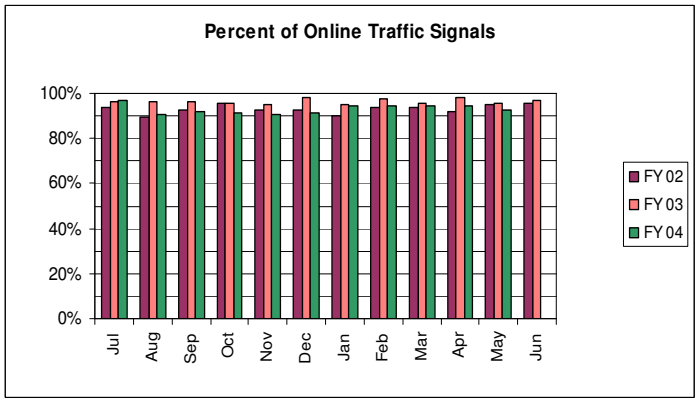


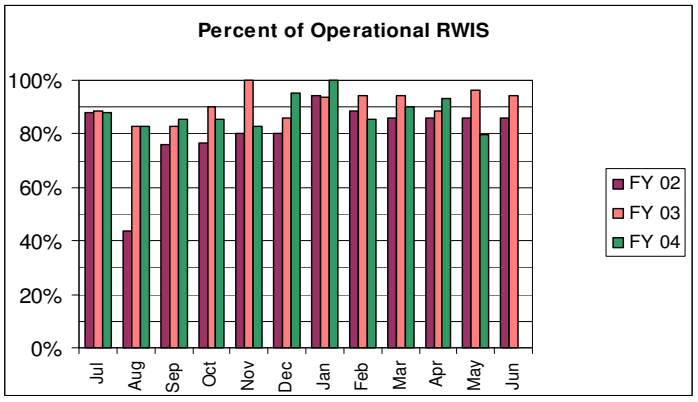
Maintenance

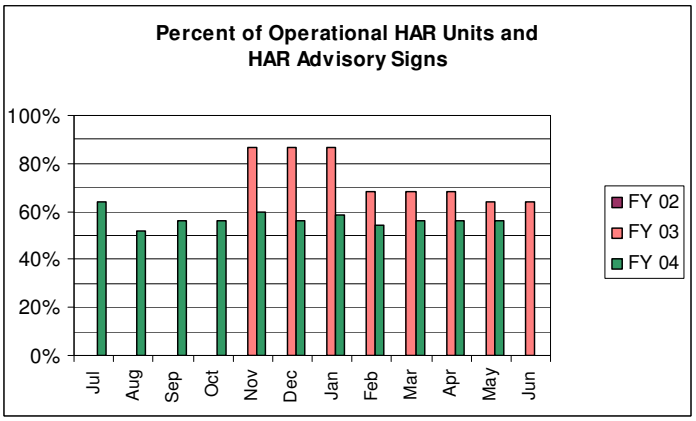


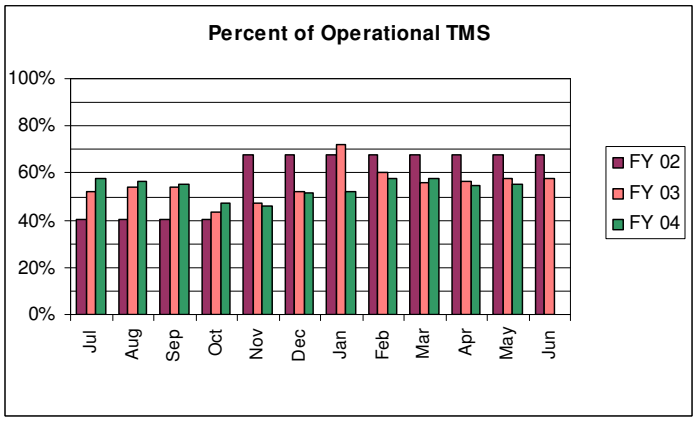




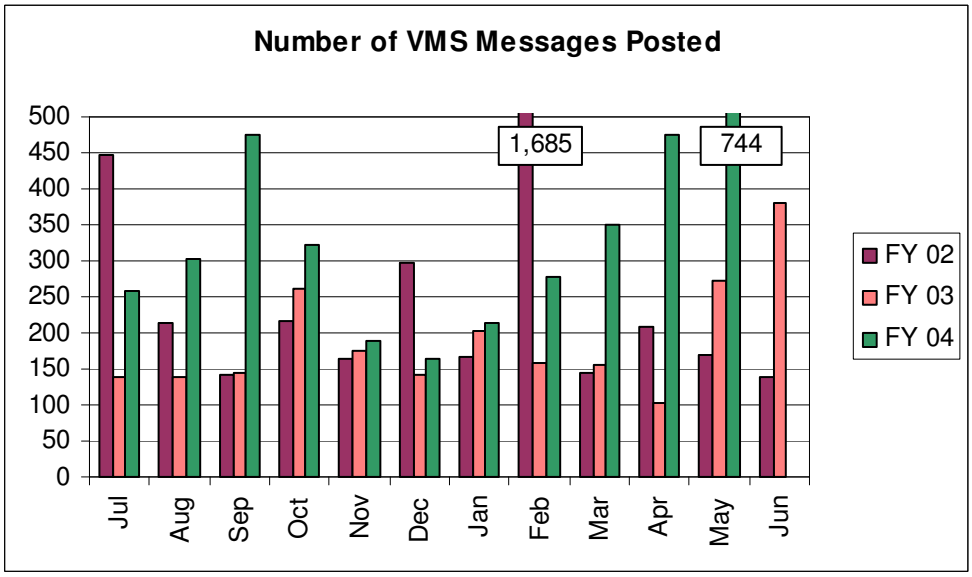


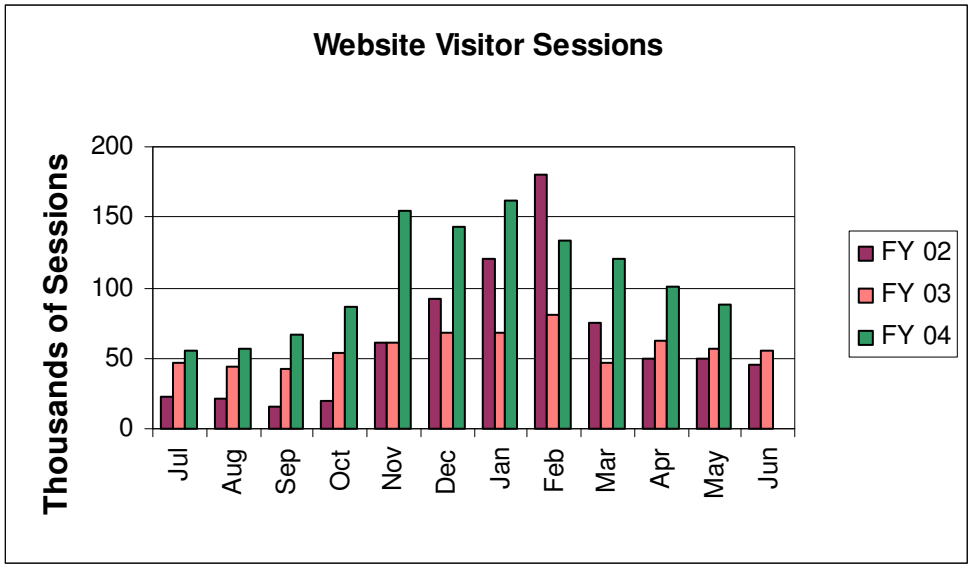


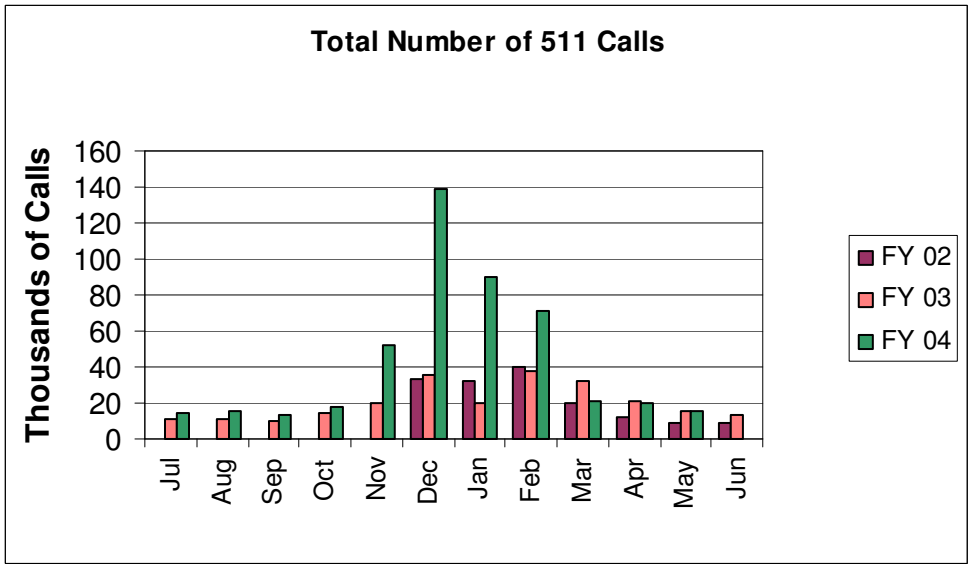




Traveler Information







Customer Service